In the claims:

1.   A node to relay the Ethernet frame comprising:
        element which inserts two or more VLAN tags into
said frame and removes said inserted VLAN tag in the
relay process of said frame.

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2.   A node as set forth in claim 1 further comprising
        element which replaces two or more VLAN tags of
said frame at a time.

3.   A node as set forth in claim 1 further
comprising:
        element which administrates said two or more VLAN
tags using the forwarding table memory for change of
5   frame contents during frame relay.

4.   A node as set forth in claim 1 further comprising
        element which searches the forwarding table
memory using the information from two or more VLAN tags
in said frame during frame relay.

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5.   A node as set forth in claim 1 further comprising
        element which searches the forwarding table
memory in the relay process of said frame with combining
the information from two or more VLAN tags in said frame
5   and the input port, the destination MAC address, the

source MAC address and the TYPE field information.

6.   A node as set forth in claim 1 further comprising
        element which provides a TTL area to show the
survival time of the frame in said VLAN tag inserted to
said frame and checks whether said survival time has
elapsed or not by the value in said TTL area and
discards said frame after elapse of said survival time
without relaying it in the relay process of said frame.

7.   A node as set forth in claim 6 further comprising
        element which decrements the value in said TTL
area by one every time said frame is relayed.

8.   A node as set forth in claim 1 wherein
        node control information is stored to said VLAN
tag.

9.   A node as set forth in claim 1 further comprising
        element which changes the self-node status
administration corresponding to the contents of said
VLAN tag.

10.   A node as set forth in claim 1 wherein
        the node status is stored to the area of said
VLAN tag in the relayed frame corresponding to the self-
node status.

11.　　A frame transfer method of the node to relay the Ethernet frame comprising

a step of inserting two or more VLAN tags to said frame at a time or removing said inserted VLAN tags in the relay process of said frame.

12.　　A frame transfer method as set forth in claim 11 wherein

a forwarding table memory for frame contents change during frame relay is used for administration of said two or more VLAN tags.

13.　　A frame transfer method as set forth in claim 11 wherein

a forwarding table memory is searched during frame relay using the information from two or more VLAN tags in said frame.

14.　　A frame transfer method as set forth in claim 11 wherein

a forwarding table memory is searched in the relay process of said frame with combining the information from two or more VLAN tags in said frame and the input port, the destination MAC address, the source MAC address and the TYPE field information.

15.   A frame transfer method as set forth in claim 11
wherein:

        a TTL area to show the survival time of the frame
is provided in said VLAN tag that is inserted to said
5   frame and whether said survival time has been elapsed or
not is checked by the value in said TTL area and said
frame after elapse of said survival time is discarded
without being relayed in the relay process of said frame.

16.   A frame transfer method as set forth in claim 15
wherein

        the value in said TTL area is decremented by one
every time said frame is relayed.

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17.   A frame transfer method as set forth in claim 11
wherein

        node control information is stored to said VLAN
tag.

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18.   A frame transfer method as set forth in claim 11
further comprising:

        changing the self-node status administration
corresponding to the contents of said VLAN tag.

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19.   A frame transfer method as set forth in claim 11
wherein

        node status is stored to said VLAN tag area in

the relayed frame corresponding to the self-node status.

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